



**IOWA**  
Department of  
Natural Resources

Environmental Management Systems Pilot Program

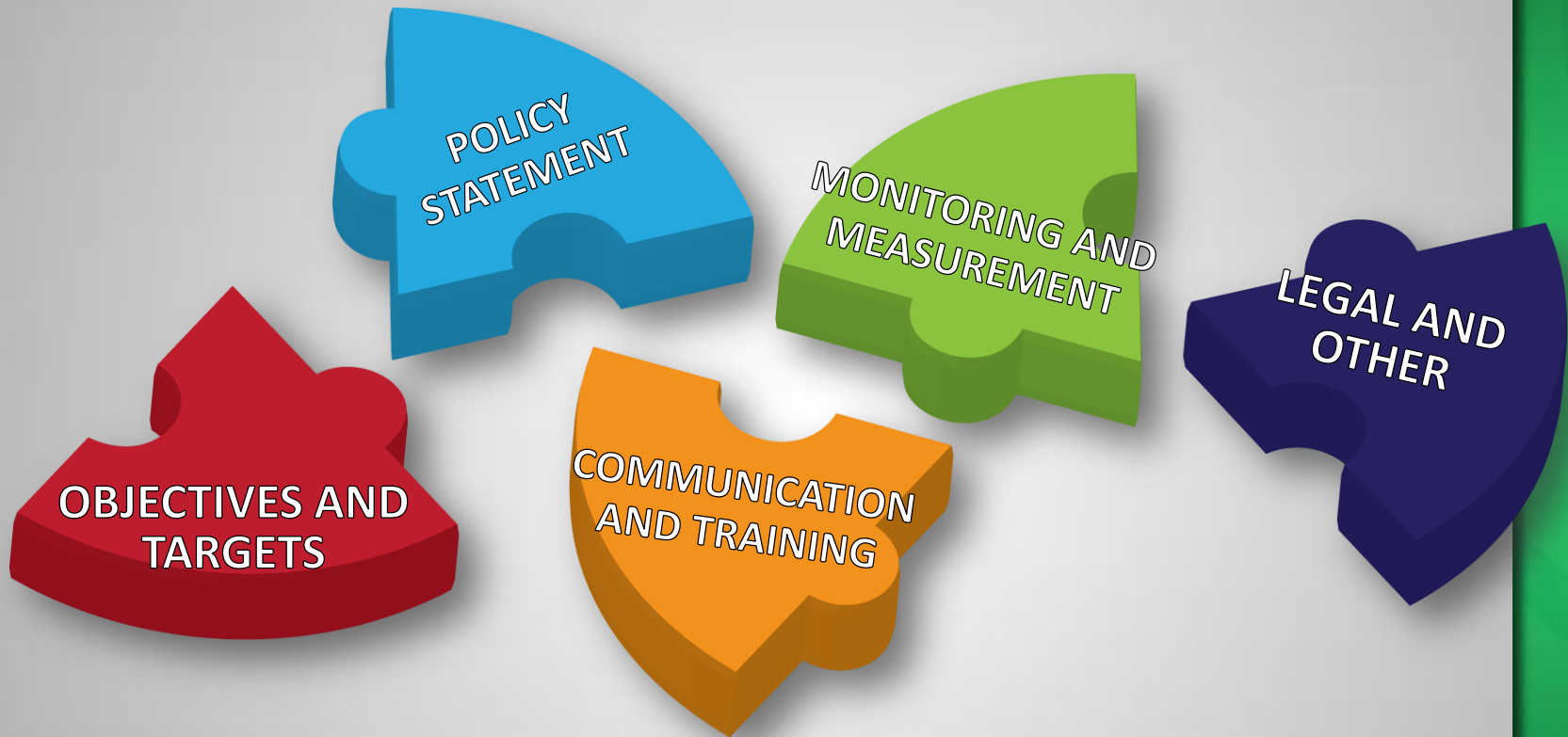
# Final Report Summary

June 15, 2011

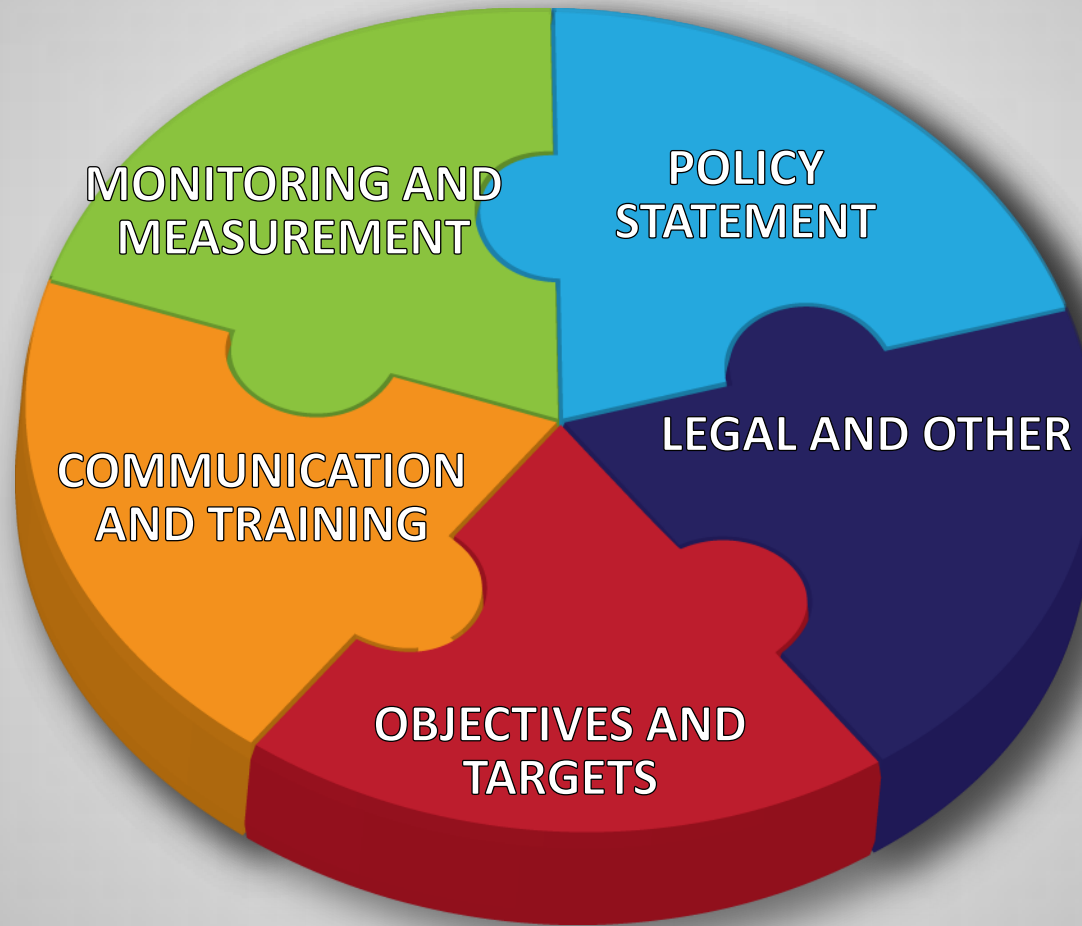


G R E S H A M  
S M I T H   A N D  
P A R T N E R S

# Before EMS...



# After EMS...



# Agenda

- ◉ EMS Program Introduction
- ◉ EMS Pilot Program Implementation
- ◉ EMS Grant Funding
- ◉ EMS Development Process
- ◉ Accomplishments of the EMS Pilot Solid Waste Agencies
- ◉ Benefits of EMS Implementation
- ◉ Path Forward & Wrap-Up

# EMS Program Introduction

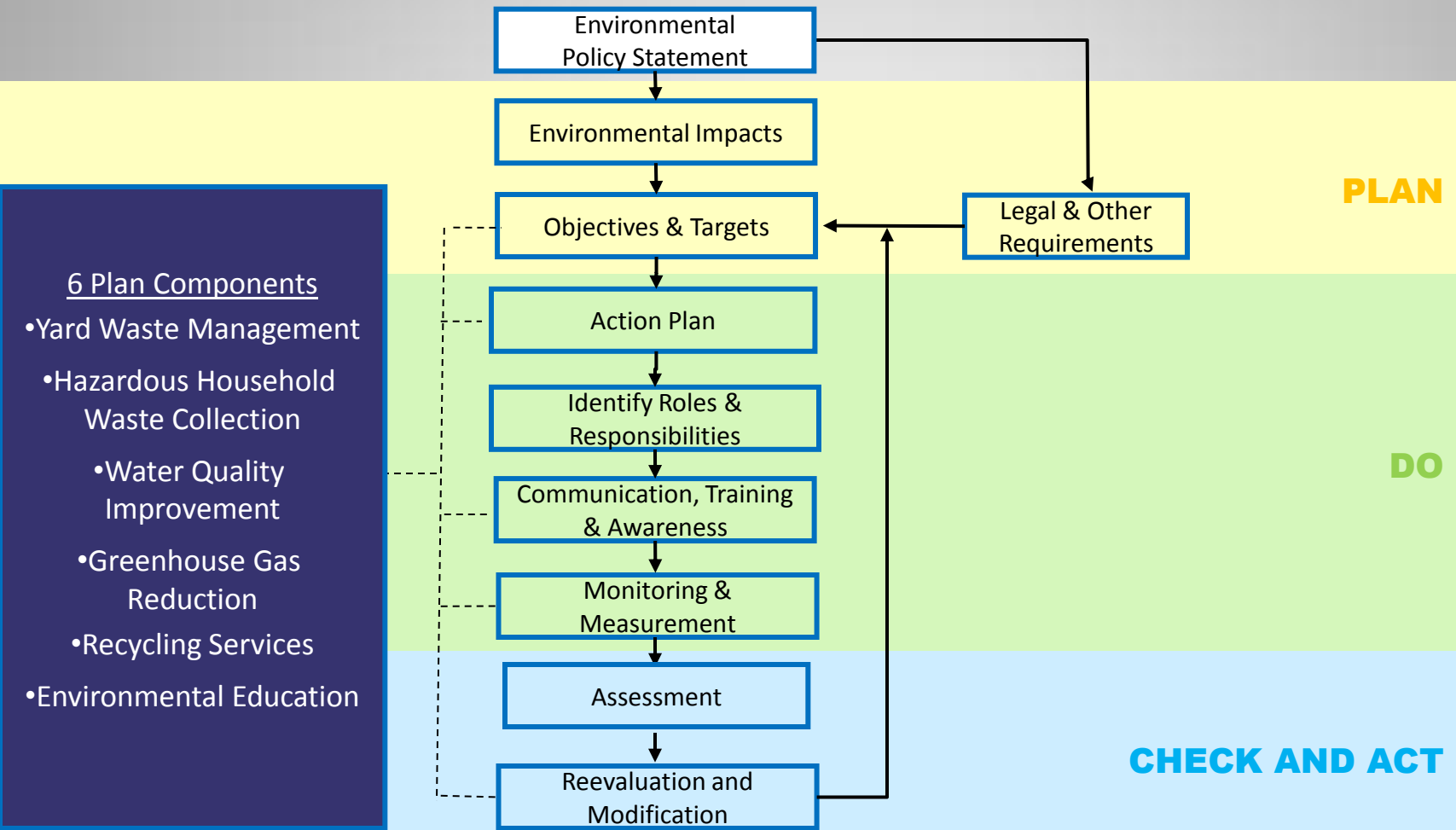
- The Council established an EMS framework and selected six solid waste agencies to participate in a pilot program.
  - Cass County Landfill and Recycling Center
  - Cedar Rapids/Linn County Solid Waste Agency
  - Dubuque Metropolitan Area Solid Waste Agency
  - Metro Waste Authority
  - Rathbun Area Solid Waste Commission
  - Waste Commission of Scott County
- Role of Pilots
  - Successfully Complete EMS Implementation
  - Share Ideas, Networking, Success Stories



# 10 Elements of an EMS (HF 2570)

- 3 main overarching elements:
  - Environmental Policy Statement
  - Environmental Impacts
  - Legal and Other Requirements
- The following 7 elements would be applied to each of the 6 plan components:
  - Objectives and Targets
  - Action Plan
  - Identify Roles and Responsibilities(\**Modified from Identify Key Resource and Responsibilities*)
  - Communication/Training/Awareness
  - Monitoring and Measurement
  - Assessment
  - Reevaluation and Modification

# Iowa EMS Framework (HF 2570)



# EMS Pilot Program Implementation

- ◉ Council's goal = Pilots should develop an EMS that meets legislative goals while serving the needs of the agency.
- ◉ A multi-faceted program implementation approach was developed and included:
  - Quarterly workshops
  - Monthly conference calls
  - Two site visits
  - Council meeting updates
  - Project website
  - EMS Templates
  - GHG baseline model
  - Use of EMS tracking software (Intelex)





# EMS Grant Funding

- First round of funding was included grants up to \$25,000.
  - “Quick Start Grants”
  - Used as seed money to provide immediate budgetary resources to initiate EMS development at the pilot solid waste agencies
- Second round of funding was for grants up to \$50,000.
  - Used to fund programs which would accomplish objectives and targets, achieving environmental improvement in the six plan component areas





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# EMS Development Process



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# Gap Analysis

- A gap analysis reviews and identifies elements of the EMS that are already in place.
  - Benefits
    - Starts understanding of the EMS and EMS language
  - What was the pilots response?
    - Common EMS elements in place (Legal and Other Requirements and Training, Awareness and Competency)
  - Lessons Learned
    - 50 – 70% of the EMS is already in place
      - Comprehensive Plans
      - Vision Statements
      - Training and Outreach Programs

# Identify EMR and EMS Core Team

- Environmental Management Representative (EMR) and EMS Core Team are responsible for the EMS.

- Benefits

- Provides a leadership group to create and consistently work through details of the EMS process

- Example EMR/Core Teams

- Smaller agencies EMR = Executive Director as the EMR
- Larger agencies EMR = Education/outreach person
- Smaller agencies EMS Core Team = Board members and EMR

- Lessons Learned

- Include management on EMS Core Team
- EMS Core Team meetings increased communication



# Environmental Policy Statement

- ◉ Environmental Policy Statement outlines management commitment to the environment and the EMS.
  - Benefits
    - Clearly defines commitments
    - Use as education with staff on the EMS
  - Lessons Learned
    - Build policy statements from existing documents and/or commitments

# Environmental Aspects/Impacts

● *Environmental Aspects/Impacts* are activities' interactions with the environment and the associated changes that occur as a result of the activities performed. The highest ranking impacts are called “significant environmental impacts.”

- Benefits

- Aspects/Impacts assist in identifying environmental priorities and/or risks

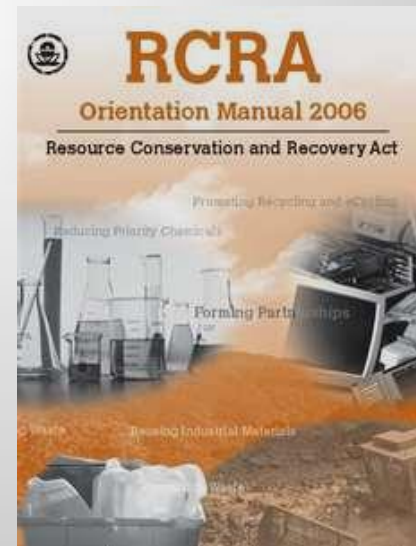
- Lessons Learned

- The process was initially confusing
- Allows the organization to prioritize for making improvements
- Staff is able to see how their job directly affects the environment



# Legal and Other

- *Legal and Other Requirements* may include laws, regulations, permits, worker health and safety, and other voluntary commitments by the organization.
  - Benefits
    - Develop a list of legal requirements to track in the future
  - Lessons Learned
    - This was an easy element for most Pilots
    - Examples are readily available
    - Need to add worker health and safety



# Objectives and Targets

- *Objectives and Targets* are the organization's overall environmental goals and must be set for the six plan components. Objectives and targets should be Specific, Measurable, Attainable, Realistic, and Timely (SMART).
  - Benefits
    - Objectives and targets provide clear and concise direction
  - Lessons Learned
    - Pilots already had existing environmental goals to include in the EMS
    - Don't over commit



# Action Plan

- An *Action Plan* outlines the tasks that are necessary to accomplish the objective and target, associated staff responsibilities, deadlines, and other information such as needed resources.
  - Benefits
    - Identifies what is achievable with existing resources
  - Lessons Learned
    - Initially difficult to determine a method for updating action plans, but solution was to include the action plan in a software tracking tool
    - Actions plans helped the pilots to strategize and coordinate the implementation of objectives and targets

# Key Resources and Additional Needs

- *Identifying Key Resources and Additional Needs* includes but is not limited to budget, staff, staff skills, equipment, and resources of external organization. An additional component includes identification of EMS roles and responsibilities.
- Benefits
  - Makes staff aware of the EMS and their role
- Lessons Learned
  - The size of the organization directly affects how long it takes to complete the key resource evaluation



# Communication/Training/Awareness

Communication/Training/Awareness includes both internal and external communication of the EMS as well as employee training and awareness.

## ■ Benefits

- Increases efficiency in message campaigns
- Promotes employee involvement and cross-training

## ■ Lessons Learned

- Pilots had existing environmental training, but had not identified training requirements by job title and tracking was inconsistent
- Tracking and following through on requests from the public is necessary in the EMS
- Internal awareness of the EMS leads to environmental improvements



# Monitoring and Measurement

- *Monitoring and Measurement* includes identification and tracking of metrics associated with objectives and targets as well as other key activities.
- Benefits
  - Provides information that demonstrates the EMS is working
  - Data motivates and provides information for decision makers to continue to build support and resources for the EMS
- Lessons learned
  - Choose simple, but meaningful metrics to track progress and promote achievements
  - Pilots were collecting metric data, but the EMS provided the necessary framework to set up a tracking system



# Assessment



- ◉ *An Assessment* is a review of the EMS and indicates whether the EMS has been implemented as designed and required by HF 2570. The assessment should be conducted by an individual that has not been intimately involved with the EMS.
- Benefits
  - ◉ Identifies areas of the EMS that are working well and potential weaknesses that may cause the greatest risk to the organization
- Lessons Learned
  - ◉ Identification of an internal auditor was difficult for some pilots and the smaller pilots generally used an external party
  - ◉ All pilots had successfully implemented an EMS, but some were still struggling with how to systematically update action plans and monitoring and measurement data

# Re-evaluation and Modification

- ◉ *Re-evaluation and Modification* includes correction action on weaknesses identified during the EMS assessment as well as conducting a senior management review.
  - Benefits
    - Provides for continual improvement of the EMS
    - Identifies strengths and weaknesses of the EMS
  - Lessons Learned
    - Identifying the root cause of an EMS weakness is the path to a permanent fix
    - Management review provides direction for the EMS for the future

# Feedback from EMS Pilot Program

- The EMS Pilot Program encouraged the solid waste agencies to work together and coordinate efforts.
- The pilot solid waste agencies thought the EMS implementation process was a great way to share ideas, discuss common problems, and provided networking opportunities as well.



# Accomplishments of the EMS Pilots Solid Waste Agencies

## ● Yard Waste Management

- Implemented wood chipper sharing program with regional collaboration
- Developed pilot program to expand municipal composting

## ● Hazardous Household Waste Collection

- Increased compact fluorescent light bulb (CFL) drop off locations
- Increased HHW participation and collection

## ● Water Quality Improvement

- Implemented on-site erosion control program
- Installed on-site stormwater management BMPs





# Accomplishments of the EMS Pilots Solid Waste Agencies

## Greenhouse Gas Reduction

- Developed energy management plan to reduce emissions
- Reduced fuel usage by adapting collection methods

## Recycling Services

- Developed shingle recycling program
- Installed recycling containers at multi-residential facilities

## Environmental Education

- Created website with program and educational information
- Installed observation deck at landfill for public tours



# Path Forward

- Council and DNR have streamlined the program administration, created grant funding processes, and purchased software tools for the EMS participants
- Lessons learned from the EMS Pilot Program, as well as example documents and programs will ease the EMS implementation process
- While each agency must develop an EMS to meet their individual needs, templates have been created for use in the first year of the EMS

# Timeline for Tier 1 Participants



## October 1, 2011

- Webinar
  - EMR
  - Selecting EMS Core Team
  - Management Support
  - Brief Intro to EMS

## January, 2012

- Site Visits
  - Aspects

## November, 2011

- 1.5 Day Workshop
  - Gap Analysis
  - Environmental Policy
  - Legal and Other
  - Environmental Aspects and Impacts
  - Documentation and Records
  - Using Intalex

## End of January

- Webinar
  - Check in on Progress
  - Setting Objectives and Targets
  - Start Monitoring and Measurement

# Timeline for Tier I Participants

## ⦿ June 2012

- 1.5 Day Workshop
  - Review Objectives and Targets
  - Setting Action Plans
  - Key Resources & Additional Needs
  - Review Monitoring and Measurement

## ⦿ October-November 2012

- Site Visits
  - Assessment

## ⦿ September 2012

- Submit annual reports on September 1, 2012
- 1.5 Day Workshop
  - Communication/Training
  - Assessment
  - Reevaluation and Modification

## ⦿ December 2012

- Webinar
  - Review Assessment
  - Review reevaluation and Modification

**QUESTIONS??**